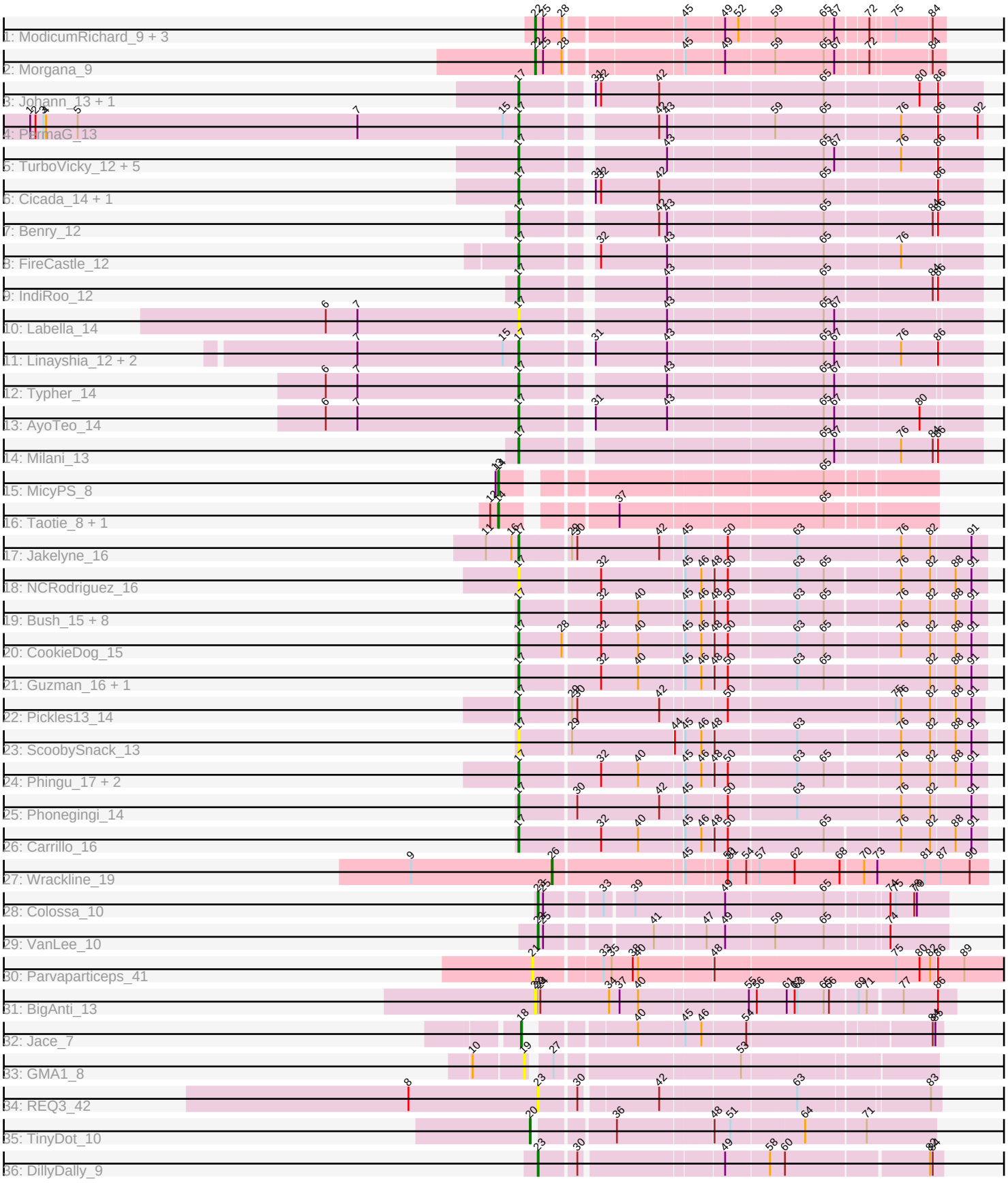
Pham 342184


1: ModicumRichard_9 + 3
2: Morgana_9
3: Johann_13 + 1
4: PrimaG_13
5: TurboVicky_12 + 5
6: Cicada_14 + 1
7: Benry_12
8: FireCastle_12
9: IndiRoo_12
10: Labella_14
11: Linayshia_12 + 2
12: Typher_14
13: AyoTeo_14
14: Milani_13
15: MicyPS_8
16: Taotie_8 + 1
17: Jakelyne_16
18: NCRodriguez_16
19: Bush_15 + 8
20: CookieDog_15
21: Guzman_16 + 1
22: Pickles13_14
23: ScoobySnack_13
24: Phingu_17 + 2
25: Phonegingi_14
26: Carrillo_16
27: Wrackline_19
28: Colossa_10
29: VanLee_10
30: Parvaparticeps_41
31: BigAnti_13
32: Jace_7
33: GMA1_8
34: REQ3_42
35: TinyDot_10
36: DillyDally_9

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 342184 Report

This analysis was run 11/14/26 on database version 672.

Pham number 342184 has 60 members, 10 are drafts.

Phages represented in each track:
- Track 1 : ModicumRichard_9, Cafasso_9, Aleemily_9, ObLaDi_9
- Track 2 : Morgana_9
- Track 3 : Johann_13, Goodman_13
- Track 4 : PermaG_13
- Track 5 : TurboVicky_12, Jera_13, SBlackberry_12, Rootkit7_12, Alove_12, Zanella_12
- Track 6 : Cicada_14, Olympi_14
- Track 7 : Benry_12
- Track 8 : FireCastle_12
- Track 9 : IndiRoo_12
- Track 10 : Labella_14
- Track 11 : Linayshia_12, Htur_12, Rasovi_12
- Track 12 : Typher_14
- Track 13 : AyoTeo_14
- Track 14 : Milani_13
- Track 15 : MicyPS_8
- Track 16 : Taotie_8, PSonyx_8
- Track 17 : Jakelyne_16
- Track 18 : NCRodriguez_16
- Track 19 : Bush_15, Winchester007_16, Mariel_16, MenE_15, Antuna_15, PhillyJawn_15, Losacky_16, Violeta_16, Appa_14
- Track 20 : CookieDog_15
- Track 21 : Guzman_16, Dropshot_14
- Track 22 : Pickles13_14
- Track 23 : ScoobySnack_13
- Track 24 : Phingu_17, Blett_15, Warren_15
- Track 25 : Phonegingi_14
- Track 26 : Carrillo_16
- Track 27 : Wrackline_19
- Track 28 : Colossa_10
- Track 29 : VanLee_10
- Track 30 : Parvaparticeps_41
- Track 31 : BigAnti_13
- Track 32 : Jace_7
- Track 33 : GMA1_8
- Track 34 : REQ3_42
- Track 35 : TinyDot_10

• Track 36 : DillyDally_9

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 17, it was called in 37 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alove_12, Antuna_15, Appa_14, AyoTeo_14, Benry_12, Blett_15, Bush_15, Carrillo_16, Cicada_14, CookieDog_15, Dropshot_14, FireCastle_12, Goodman_13, Guzman_16, Htur_12, IndiRoo_12, Jakelyne_16, Jera_13, Johann_13, Labella_14, Linayshia_12, Losacky_16, Mariel_16, MenE_15, Milani_13, NCRodriguez_16, Olympi_14, PermaG_13, PhillyJawn_15, Phingu_17, Phonegingi_14, Pickles13_14, Rasovi_12, Rootkit7_12, SBlackberry_12, ScoobySnack_13, TurboVicky_12, Typher_14, Violeta_16, Warren_15, Winchester007_16, Zanella_12,

Genes that have the "Most Annotated" start but do not call it:
•

Genes that do not have the "Most Annotated" start:
• Aleemily_9, BigAnti_13, Cafasso_9, Colossa_10, DillyDally_9, GMA1_8, Jace_7, MicyPS_8, ModicumRichard_9, Morgana_9, ObLaDi_9, PSonyx_8, Parvaparticeps_41, REQ3_42, Taotie_8, TinyDot_10, VanLee_10, Wrackline_19,

Summary by start number:

Start 14:
• Found in 3 of 60 (5.0%) of genes in pham
• Manual Annotations of this start: 2 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MicyPS_8 (EQ), PSonyx_8 (EQ), Taotie_8 (EQ),

Start 17:
• Found in 42 of 60 (70.0%) of genes in pham
• Manual Annotations of this start: 37 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alove_12 (EJ), Antuna_15 (GA), Appa_14 (GA), AyoTeo_14 (EJ), Benry_12 (EJ), Blett_15 (GA), Bush_15 (GA), Carrillo_16 (GA), Cicada_14 (EJ), CookieDog_15 (GA), Dropshot_14 (GA), FireCastle_12 (EJ), Goodman_13 (EJ), Guzman_16 (GA), Htur_12 (EJ), IndiRoo_12 (EJ), Jakelyne_16 (GA), Jera_13 (EJ), Johann_13 (EJ), Labella_14 (EJ), Linayshia_12 (EJ), Losacky_16 (GA), Mariel_16 (GA), MenE_15 (GA), Milani_13 (EJ), NCRodriguez_16 (GA), Olympi_14 (EJ), PermaG_13 (EJ), PhillyJawn_15 (GA), Phingu_17 (GA), Phonegingi_14 (GA), Pickles13_14 (GA), Rasovi_12 (EJ), Rootkit7_12 (EJ), SBlackberry_12 (EJ), ScoobySnack_13 (GA), TurboVicky_12 (EJ), Typher_14 (EJ), Violeta_16 (GA), Warren_15 (GA), Winchester007_16 (GA), Zanella_12 (EJ),

Start 18:

• Found in 1 of 60 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jace_7 (singleton),

Start 19:
• Found in 1 of 60 (1.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA1_8 (singleton),

Start 20:
• Found in 1 of 60 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TinyDot_10 (singleton),

Start 21:
• Found in 1 of 60 (1.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Parvaparticeps_41 (UNK),

Start 22:
• Found in 6 of 60 (10.0%) of genes in pham
• Manual Annotations of this start: 5 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aleemily_9 (DZ), BigAnti_13 (singleton), Cafasso_9 (DZ), ModicumRichard_9 (DZ), Morgana_9 (DZ), ObLaDi_9 (DZ),

Start 23:
• Found in 5 of 60 (8.3%) of genes in pham
• Manual Annotations of this start: 3 of 50
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Colossa_10 (KA), DillyDally_9 (singleton), REQ3_42 (singleton), VanLee_10 (KA),

Start 26:
• Found in 1 of 60 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 50
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Wrackline_19 (GF),

Summary by clusters:

There are 8 clusters represented in this pham: singleton, EJ, KA, GF, DZ, GA, UNK, EQ,

Info for manual annotations of cluster DZ:
•Start number 22 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster EJ:
•Start number 17 was manually annotated 20 times for cluster EJ.

Info for manual annotations of cluster EQ:
•Start number 14 was manually annotated 2 times for cluster EQ.

Info for manual annotations of cluster GA:
•Start number 17 was manually annotated 17 times for cluster GA.

Info for manual annotations of cluster GF:
•Start number 26 was manually annotated 1 time for cluster GF.

Info for manual annotations of cluster KA:
•Start number 23 was manually annotated 2 times for cluster KA.

Gene Information:

Gene: Aleemily_9 Start: 7322, Stop: 7741, Start Num: 22
Candidate Starts for Aleemily_9:
(Start: 22 @7322 has 5 MA's), (25, 7331), (28, 7352), (45, 7472), (49, 7514), (52, 7529), (59, 7568), (65, 7619), (67, 7631), (72, 7664), (75, 7688), (84, 7727),

Gene: Alove_12 Start: 10414, Stop: 10893, Start Num: 17
Candidate Starts for Alove_12:
(Start: 17 @10414 has 37 MA's), (43, 10561), (65, 10726), (67, 10738), (76, 10807), (86, 10846),

Gene: Antuna_15 Start: 8492, Stop: 8986, Start Num: 17
Candidate Starts for Antuna_15:
(Start: 17 @8492 has 37 MA's), (32, 8579), (40, 8621), (45, 8669), (46, 8687), (48, 8699), (50, 8714), (63, 8786), (65, 8816), (76, 8894), (82, 8927), (88, 8951), (91, 8969),

Gene: Appa_14 Start: 8354, Stop: 8848, Start Num: 17
Candidate Starts for Appa_14:
(Start: 17 @8354 has 37 MA's), (32, 8441), (40, 8483), (45, 8531), (46, 8549), (48, 8561), (50, 8576), (63, 8648), (65, 8678), (76, 8756), (82, 8789), (88, 8813), (91, 8831),

Gene: AyoTeo_14 Start: 10545, Stop: 11024, Start Num: 17
Candidate Starts for AyoTeo_14:
(6, 10329), (7, 10365), (Start: 17 @10545 has 37 MA's), (31, 10611), (43, 10692), (65, 10857), (67, 10869), (80, 10959),

Gene: Benry_12 Start: 8598, Stop: 9080, Start Num: 17
Candidate Starts for Benry_12:
(Start: 17 @8598 has 37 MA's), (42, 8736), (43, 8745), (65, 8910), (84, 9027), (86, 9030),

Gene: BigAnti_13 Start: 11145, Stop: 11603, Start Num: 22
Candidate Starts for BigAnti_13:
(Start: 22 @11145 has 5 MA's), (Start: 23 @11148 has 3 MA's), (24, 11151), (34, 11229), (37, 11241), (40, 11262), (55, 11379), (56, 11388), (61, 11421), (62, 11430), (63, 11433), (65, 11463), (66, 11469), (69, 11499), (71, 11508), (77, 11544), (86, 11583),

Gene: Blett_15 Start: 8507, Stop: 9001, Start Num: 17

Candidate Starts for Blett_15:
(Start: 17 @8507 has 37 MA's), (32, 8594), (40, 8636), (45, 8684), (46, 8702), (48, 8714), (50, 8729), (63, 8801), (65, 8831), (76, 8909), (82, 8942), (88, 8966), (91, 8984),

Gene: Bush_15 Start: 8488, Stop: 8982, Start Num: 17
Candidate Starts for Bush_15:
(Start: 17 @8488 has 37 MA's), (32, 8575), (40, 8617), (45, 8665), (46, 8683), (48, 8695), (50, 8710), (63, 8782), (65, 8812), (76, 8890), (82, 8923), (88, 8947), (91, 8965),

Gene: Cafasso_9 Start: 7322, Stop: 7741, Start Num: 22
Candidate Starts for Cafasso_9:
(Start: 22 @7322 has 5 MA's), (25, 7331), (28, 7352), (45, 7472), (49, 7514), (52, 7529), (59, 7568), (65, 7619), (67, 7631), (72, 7664), (75, 7688), (84, 7727),

Gene: Carrillo_16 Start: 8461, Stop: 8955, Start Num: 17
Candidate Starts for Carrillo_16:
(Start: 17 @8461 has 37 MA's), (32, 8548), (40, 8590), (45, 8638), (46, 8656), (48, 8668), (50, 8683), (65, 8785), (76, 8863), (82, 8896), (88, 8920), (91, 8938),

Gene: Cicada_14 Start: 10667, Stop: 11149, Start Num: 17
Candidate Starts for Cicada_14:
(Start: 17 @10667 has 37 MA's), (31, 10733), (32, 10739), (42, 10805), (65, 10982), (86, 11102),

Gene: Colossa_10 Start: 7206, Stop: 7625, Start Num: 23
Candidate Starts for Colossa_10:
(Start: 23 @7206 has 3 MA's), (25, 7212), (33, 7269), (39, 7299), (49, 7392), (65, 7497), (74, 7560), (75, 7566), (78, 7587), (79, 7590),

Gene: CookieDog_15 Start: 8488, Stop: 8982, Start Num: 17
Candidate Starts for CookieDog_15:
(Start: 17 @8488 has 37 MA's), (28, 8536), (32, 8575), (40, 8617), (45, 8665), (46, 8683), (48, 8695), (50, 8710), (63, 8782), (65, 8812), (76, 8890), (82, 8923), (88, 8947), (91, 8965),

Gene: DillyDally_9 Start: 7083, Stop: 7502, Start Num: 23
Candidate Starts for DillyDally_9:
(Start: 23 @7083 has 3 MA's), (30, 7122), (49, 7272), (58, 7320), (60, 7335), (82, 7488), (84, 7491),

Gene: Dropshot_14 Start: 8354, Stop: 8848, Start Num: 17
Candidate Starts for Dropshot_14:
(Start: 17 @8354 has 37 MA's), (32, 8441), (40, 8483), (45, 8531), (46, 8549), (48, 8561), (50, 8576), (63, 8648), (65, 8678), (82, 8789), (88, 8813), (91, 8831),

Gene: FireCastle_12 Start: 10331, Stop: 10810, Start Num: 17
Candidate Starts for FireCastle_12:
(Start: 17 @10331 has 37 MA's), (32, 10403), (43, 10478), (65, 10643), (76, 10724),

Gene: GMA1_8 Start: 6454, Stop: 6870, Start Num: 19
Candidate Starts for GMA1_8:
(10, 6400), (19, 6454), (27, 6475), (53, 6667),

Gene: Goodman_13 Start: 10579, Stop: 11061, Start Num: 17
Candidate Starts for Goodman_13:

(Start: 17 @10579 has 37 MA's), (31, 10645), (32, 10651), (42, 10717), (65, 10894), (80, 10996), (86, 11014),

Gene: Guzman_16 Start: 8769, Stop: 9263, Start Num: 17
Candidate Starts for Guzman_16:
(Start: 17 @8769 has 37 MA's), (32, 8856), (40, 8898), (45, 8946), (46, 8964), (48, 8976), (50, 8991), (63, 9063), (65, 9093), (82, 9204), (88, 9228), (91, 9246),

Gene: Htur_12 Start: 10585, Stop: 11064, Start Num: 17
Candidate Starts for Htur_12:
(7, 10405), (15, 10570), (Start: 17 @10585 has 37 MA's), (31, 10651), (43, 10732), (65, 10897), (67, 10909), (76, 10978), (86, 11017),

Gene: IndiRoo_12 Start: 8606, Stop: 9088, Start Num: 17
Candidate Starts for IndiRoo_12:
(Start: 17 @8606 has 37 MA's), (43, 8753), (65, 8918), (84, 9035), (86, 9038),

Gene: Jace_7 Start: 6635, Stop: 7051, Start Num: 18
Candidate Starts for Jace_7:
(Start: 18 @6635 has 1 MA's), (40, 6734), (45, 6782), (46, 6800), (54, 6848), (84, 7040), (85, 7043),

Gene: Jakelyne_16 Start: 8504, Stop: 9004, Start Num: 17
Candidate Starts for Jakelyne_16:
(11, 8471), (16, 8498), (Start: 17 @8504 has 37 MA's), (29, 8558), (30, 8564), (42, 8657), (45, 8681), (50, 8726), (63, 8798), (76, 8912), (82, 8945), (91, 8987),

Gene: Jera_13 Start: 9661, Stop: 10140, Start Num: 17
Candidate Starts for Jera_13:
(Start: 17 @9661 has 37 MA's), (43, 9808), (65, 9973), (67, 9985), (76, 10054), (86, 10093),

Gene: Johann_13 Start: 10579, Stop: 11061, Start Num: 17
Candidate Starts for Johann_13:
(Start: 17 @10579 has 37 MA's), (31, 10645), (32, 10651), (42, 10717), (65, 10894), (80, 10996), (86, 11014),

Gene: Labella_14 Start: 10549, Stop: 11028, Start Num: 17
Candidate Starts for Labella_14:
(6, 10333), (7, 10369), (Start: 17 @10549 has 37 MA's), (43, 10696), (65, 10861), (67, 10873),

Gene: Linayshia_12 Start: 10577, Stop: 11056, Start Num: 17
Candidate Starts for Linayshia_12:
(7, 10397), (15, 10562), (Start: 17 @10577 has 37 MA's), (31, 10643), (43, 10724), (65, 10889), (67, 10901), (76, 10970), (86, 11009),

Gene: Losacky_16 Start: 8634, Stop: 9128, Start Num: 17
Candidate Starts for Losacky_16:
(Start: 17 @8634 has 37 MA's), (32, 8721), (40, 8763), (45, 8811), (46, 8829), (48, 8841), (50, 8856), (63, 8928), (65, 8958), (76, 9036), (82, 9069), (88, 9093), (91, 9111),

Gene: Mariel_16 Start: 8665, Stop: 9159, Start Num: 17
Candidate Starts for Mariel_16:
(Start: 17 @8665 has 37 MA's), (32, 8752), (40, 8794), (45, 8842), (46, 8860), (48, 8872), (50, 8887), (63, 8959), (65, 8989), (76, 9067), (82, 9100), (88, 9124), (91, 9142),

Gene: MenE_15 Start: 8622, Stop: 9116, Start Num: 17
Candidate Starts for MenE_15:
(Start: 17 @8622 has 37 MA's), (32, 8709), (40, 8751), (45, 8799), (46, 8817), (48, 8829), (50, 8844), (63, 8916), (65, 8946), (76, 9024), (82, 9057), (88, 9081), (91, 9099),

Gene: MicyPS_8 Start: 7128, Stop: 7565, Start Num: 14
Candidate Starts for MicyPS_8:
(13, 7125), (Start: 14 @7128 has 2 MA's), (65, 7449),

Gene: Milani_13 Start: 9257, Stop: 9739, Start Num: 17
Candidate Starts for Milani_13:
(Start: 17 @9257 has 37 MA's), (65, 9569), (67, 9581), (76, 9650), (84, 9686), (86, 9689),

Gene: ModicumRichard_9 Start: 7322, Stop: 7741, Start Num: 22
Candidate Starts for ModicumRichard_9:
(Start: 22 @7322 has 5 MA's), (25, 7331), (28, 7352), (45, 7472), (49, 7514), (52, 7529), (59, 7568), (65, 7619), (67, 7631), (72, 7664), (75, 7688), (84, 7727),

Gene: Morgana_9 Start: 7326, Stop: 7745, Start Num: 22
Candidate Starts for Morgana_9:
(Start: 22 @7326 has 5 MA's), (25, 7335), (28, 7356), (45, 7476), (49, 7518), (59, 7572), (65, 7623), (67, 7635), (72, 7668), (84, 7731),

Gene: NCRodriguez_16 Start: 8623, Stop: 9117, Start Num: 17
Candidate Starts for NCRodriguez_16:
(Start: 17 @8623 has 37 MA's), (32, 8710), (45, 8800), (46, 8818), (48, 8830), (50, 8845), (63, 8917), (65, 8947), (76, 9025), (82, 9058), (88, 9082), (91, 9100),

Gene: ObLaDi_9 Start: 7322, Stop: 7741, Start Num: 22
Candidate Starts for ObLaDi_9:
(Start: 22 @7322 has 5 MA's), (25, 7331), (28, 7352), (45, 7472), (49, 7514), (52, 7529), (59, 7568), (65, 7619), (67, 7631), (72, 7664), (75, 7688), (84, 7727),

Gene: Olympi_14 Start: 10570, Stop: 11052, Start Num: 17
Candidate Starts for Olympi_14:
(Start: 17 @10570 has 37 MA's), (31, 10636), (32, 10642), (42, 10708), (65, 10885), (86, 11005),

Gene: PSonyx_8 Start: 7275, Stop: 7712, Start Num: 14
Candidate Starts for PSonyx_8:
(12, 7266), (Start: 14 @7275 has 2 MA's), (37, 7380), (65, 7596),

Gene: Parvaparticeps_41 Start: 29683, Stop: 29165, Start Num: 21
Candidate Starts for Parvaparticeps_41:
(21, 29683), (33, 29611), (35, 29602), (38, 29578), (40, 29572), (48, 29491), (75, 29293), (80, 29266), (82, 29254), (86, 29248), (89, 29218),

Gene: PermaG_13 Start: 10645, Stop: 11124, Start Num: 17
Candidate Starts for PermaG_13:
(1, 10093), (2, 10099), (3, 10108), (4, 10111), (5, 10147), (7, 10465), (15, 10630), (Start: 17 @10645 has 37 MA's), (42, 10783), (43, 10792), (59, 10906), (65, 10957), (76, 11038), (86, 11077), (92, 11119),

Gene: PhillyJawn_15 Start: 8354, Stop: 8848, Start Num: 17

Candidate Starts for PhillyJawn_15:
(Start: 17 @8354 has 37 MA's), (32, 8441), (40, 8483), (45, 8531), (46, 8549), (48, 8561), (50, 8576), (63, 8648), (65, 8678), (76, 8756), (82, 8789), (88, 8813), (91, 8831),

Gene: Phingu_17 Start: 8513, Stop: 9007, Start Num: 17
Candidate Starts for Phingu_17:
(Start: 17 @8513 has 37 MA's), (32, 8600), (40, 8642), (45, 8690), (46, 8708), (48, 8720), (50, 8735), (63, 8807), (65, 8837), (76, 8915), (82, 8948), (88, 8972), (91, 8990),

Gene: Phonegingi_14 Start: 8348, Stop: 8848, Start Num: 17
Candidate Starts for Phonegingi_14:
(Start: 17 @8348 has 37 MA's), (30, 8408), (42, 8501), (45, 8525), (50, 8570), (63, 8642), (76, 8756), (82, 8789), (91, 8831),

Gene: Pickles13_14 Start: 8518, Stop: 9012, Start Num: 17
Candidate Starts for Pickles13_14:
(Start: 17 @8518 has 37 MA's), (29, 8572), (30, 8578), (42, 8671), (50, 8740), (75, 8920), (76, 8926), (82, 8959), (88, 8980), (91, 8998),

Gene: REQ3_42 Start: 23499, Stop: 23909, Start Num: 23
Candidate Starts for REQ3_42:
(8, 23352), (Start: 23 @23499 has 3 MA's), (30, 23538), (42, 23619), (63, 23760), (83, 23898),

Gene: Rasovi_12 Start: 10585, Stop: 11064, Start Num: 17
Candidate Starts for Rasovi_12:
(7, 10405), (15, 10570), (Start: 17 @10585 has 37 MA's), (31, 10651), (43, 10732), (65, 10897), (67, 10909), (76, 10978), (86, 11017),

Gene: Rootkit7_12 Start: 10414, Stop: 10893, Start Num: 17
Candidate Starts for Rootkit7_12:
(Start: 17 @10414 has 37 MA's), (43, 10561), (65, 10726), (67, 10738), (76, 10807), (86, 10846),

Gene: SBlackberry_12 Start: 10420, Stop: 10899, Start Num: 17
Candidate Starts for SBlackberry_12:
(Start: 17 @10420 has 37 MA's), (43, 10567), (65, 10732), (67, 10744), (76, 10813), (86, 10852),

Gene: ScoobySnack_13 Start: 8223, Stop: 8717, Start Num: 17
Candidate Starts for ScoobySnack_13:
(Start: 17 @8223 has 37 MA's), (29, 8277), (44, 8391), (45, 8400), (46, 8418), (48, 8430), (63, 8517), (76, 8625), (82, 8658), (88, 8682), (91, 8700),

Gene: Taotie_8 Start: 8172, Stop: 8609, Start Num: 14
Candidate Starts for Taotie_8:
(12, 8163), (Start: 14 @8172 has 2 MA's), (37, 8277), (65, 8493),

Gene: TinyDot_10 Start: 7216, Stop: 7635, Start Num: 20
Candidate Starts for TinyDot_10:
(Start: 20 @7216 has 1 MA's), (36, 7294), (48, 7396), (51, 7414), (64, 7492), (71, 7558),

Gene: TurboVicky_12 Start: 10414, Stop: 10893, Start Num: 17
Candidate Starts for TurboVicky_12:
(Start: 17 @10414 has 37 MA's), (43, 10561), (65, 10726), (67, 10738), (76, 10807), (86, 10846),

Gene: Typher_14 Start: 10548, Stop: 11027, Start Num: 17
Candidate Starts for Typher_14:
(6, 10332), (7, 10368), (Start: 17 @10548 has 37 MA's), (43, 10695), (65, 10860), (67, 10872),

Gene: VanLee_10 Start: 7200, Stop: 7619, Start Num: 23
Candidate Starts for VanLee_10:
(Start: 23 @7200 has 3 MA's), (25, 7206), (41, 7314), (47, 7365), (49, 7386), (59, 7440), (65, 7491), (74, 7554),

Gene: Violeta_16 Start: 8452, Stop: 8946, Start Num: 17
Candidate Starts for Violeta_16:
(Start: 17 @8452 has 37 MA's), (32, 8539), (40, 8581), (45, 8629), (46, 8647), (48, 8659), (50, 8674), (63, 8746), (65, 8776), (76, 8854), (82, 8887), (88, 8911), (91, 8929),

Gene: Warren_15 Start: 8551, Stop: 9045, Start Num: 17
Candidate Starts for Warren_15:
(Start: 17 @8551 has 37 MA's), (32, 8638), (40, 8680), (45, 8728), (46, 8746), (48, 8758), (50, 8773), (63, 8845), (65, 8875), (76, 8953), (82, 8986), (88, 9010), (91, 9028),

Gene: Winchester007_16 Start: 8494, Stop: 8988, Start Num: 17
Candidate Starts for Winchester007_16:
(Start: 17 @8494 has 37 MA's), (32, 8581), (40, 8623), (45, 8671), (46, 8689), (48, 8701), (50, 8716), (63, 8788), (65, 8818), (76, 8896), (82, 8929), (88, 8953), (91, 8971),

Gene: Wrackline_19 Start: 9814, Stop: 10284, Start Num: 26
Candidate Starts for Wrackline_19:
(9, 9655), (Start: 26 @9814 has 1 MA's), (45, 9955), (50, 9997), (51, 10000), (54, 10018), (57, 10030), (62, 10069), (68, 10120), (70, 10144), (73, 10159), (81, 10213), (87, 10231), (90, 10264),

Gene: Zanella_12 Start: 10417, Stop: 10896, Start Num: 17
Candidate Starts for Zanella_12:
(Start: 17 @10417 has 37 MA's), (43, 10564), (65, 10729), (67, 10741), (76, 10810), (86, 10849),